Amendments to the Claims

1. (Original) A method of selecting a data signal source from amongst a plurality of potential sources, the method comprising:

(a) selecting a source from amongst the plurality of potential sources;

(b) monitoring the selected source for an indication of communication speed;

(c) returning to step (a) if no indication of communication speed is observed; and

(d) maintaining the selection of step (a) if an indication of communication speed is observed.

2. (Original) The method of claim 1, further comprising:

returning to step (a), selecting a source from amongst the plurality of potential sources, upon absence of a data signal from the selected source.

3. (Original) The method of claim 1, wherein the indication of communication speed is an idle signal.

4. (Original) The method of claim 3, wherein the idle signal is a normal link pulse.

5. (Original) The method of claim 3, wherein the idle signal is a multi-level tier 3 pulse.

6. (Original) A method of selecting a data signal source from amongst a plurality of potential sources, the method comprising:

(a) selecting a source from amongst the plurality of potential sources;

(b) monitoring the selected source for an indication of an ensuing autonegotiation period;

(c) waiting for expiration of the ensuing autonegotiation period;

(d) returning to step (a) if after expiration of the autonegotiation period, no indication of communication speed is observed; and

(e) maintaining the selection of step (a) if after expiration of the autonegotiation period, an indication of communication speed is observed.

7. (Original) The method of claim 6, further comprising:

returning to step (a), selecting a source from amongst the plurality of potential sources, upon absence of a data signal from the selected source.

8. (Original) The method of claim 6, wherein the indication of an ensuing autonegotiation period is an idle signal.

9. (Original) The method of claim 8, wherein the idle signal is a fast link pulse.

10. (Original) The method of claim 6, wherein waiting for the expiration of the autonegotiation period comprises waiting approximately 20 seconds.

11. (Original) A method of selecting a data signal source from amongst a plurality of potential sources, the method comprising:

(a) selecting a source from amongst the plurality of potential sources;

(b) monitoring the selected source for an indication of communication speed or an ensuing autonegotiation period;

(c) returning to step (a) if no indication of communication speed or an ensuing autonegotiation period is observed;

(d) maintaining the selection of step (a), if an indication of communication speed is observed;

(e) waiting for expiration of the ensuing autonegotiation period, if an indication of an ensuing autonegotiation period is observed;

(f) returning to step (a) if after expiration of the autonegotiation period, no indication of communication speed is observed; and

(g) maintaining the selection of step (a) if after expiration of the autonegotiation period, an indication of communication speed is observed.

12. (Original) The method of claim 11, further comprising the following step to be carried out after either steps (d) or (g): returning to step (a) upon absence of a data signal from the selected source.

13. (Original) The method of claim 11, wherein the indication of communication speed is an idle signal.

14. (Original) The method of claim 13, wherein the idle signal is a normal link pulse.

15. (Original) The method of claim 13, wherein the idle signal is a multi-level tier 3 pulse.

16. (Original) The method of claim 11, wherein the indication of an ensuing autonegotiation period is an idle signal.

17. (Original) The method of claim 11, wherein the idle signal is a fast link pulse.

18. (Original) The method of claim 11, wherein waiting for the expiration of the autonegotiation period comprises waiting approximately 20 seconds.

19. (Original) A method for a media converter to identify which of two pairs of pins on a data jack is carrying a data signal sent from a network device, wherein the media converter includes a physical interface having an input port into which the data signal from the network device is to be supplied, and wherein the media converter further includes a switch interposed between the data jack and the physical interface, the method comprising:

using the switch to alternately couple the input port on the physical interface between a first pair of pins on the data jack and a second pair of pins on the data jack;

monitoring the pair of pins coupled to the input port of the physical interface for an indication of the speed at which the network device will communicate;

upon determining the communication speed, ceasing to alternately couple the physical interface between the first pair of pins on the data jack and the second pair of pins on the data jack.

20. (Original) The method of claim 19, wherein the data jack is an RJ-45 data jack.

21. (Original) The method of claim 19, wherein monitoring the pair of pins coupled to the input port of the physical interface for an indication of the speed at which the network device will communicate comprises monitoring the pair of pins for an idle signal carried thereupon.

22. (Original) The method of claim 21, wherein the idle signal is a normal link pulse.

23. (Original) The method of claim 21, wherein the idle signal is a multi-level tier 3 pulse.

24. (Original) The method of claim 19, further comprising:

monitoring the pair of pins coupled to the input port of the physical interface for an indication of an ensuing autonegotiation period;

waiting for expiration of the ensuing autonegotiation period, if an indication of an ensuing autonegotiation period is observed;

after expiration of the ensuing autonegotiation period, monitoring the pair of pins coupled to the input port of the physical interface for an indication of the speed at which the network device will communicate; and

upon determining the communication speed, ceasing to alternately couple the physical interface between the first pair of pins on the data jack and the second pair of pins on the data jack.

25. (Original) The method of claim 24, wherein

monitoring the pair of pins coupled to the input port of the physical interface for an indication of an ensuing autonegotiation period comprises monitoring the pair of pins for an idle signal carried theeupon.

26. (Original) The method of claim 25, wherein the idle signal is a fast link pulse.

27. (Original) A media converter comprising:

a switch having a first end and a second end, the first end capable of coupling to any of a plurality of potential sources of a data signal, the second end coupled to an input port of a physical interface that converts the data signal from a signal that propagates along a first medium to a signal that propagates along a second medium;

an optical transceiver coupled to the physical interface;

a logic device coupled to the physical interface;

wherein the logic device is arranged to

cause the switch to iteratively couple its first end to each of the plurality of potential data sources on a one-by-one basis, until instructed to cease such iterative coupling by the logic device;

receive a signal from the physical interface, the signal communicating a data rate at which the data signal will be communicated; and

upon reception of the signal communicating the data rate at which the data signal will be communicated, instruct the switch to cease the iterative coupling.

28. (Original) The media converter of claim 27, wherein the logic device is further arranged to:

receive a signal from the physical interface, the signal communicating that a period during which the data signal will be at least partially absent is ensuing;

wait for the period during which the data signal will be at least partially absent to expire;

receive a signal from the physical interface, the signal communicating a data rate at which the data signal will be communicated; and

upon reception of the signal communicating the data rate at which the data signal will be communicated, instruct the switch to cease the iterative coupling.

29. (Original) The media converter of claim 28, wherein the period during which the data signal will be at least partially absent to comprises an autonegotiation period.

30. (Original) The media converter of claim 27, wherein the logic device is a microprocessor.

31. (Original) The media converter of claim 27, wherein the logic device is an application specific integrated circuit.

32. (Original) The media converter of claim 27, wherein the first medium comprises a metallic conduction path.

33. (Original) The media converter of claim 27, wherein the second medium comprises an optical fiber.

34. (Original) The media converter of claim 27, wherein the first medium comprises an optical fiber.

35. (Original) The media converter of claim 27, wherein the second medium comprises a metallic conduction path.

36. (Original) The media converter of claim 27, wherein the signal communicating a data rate at which the data signal will be communicated is a two-bit digital signal derived from a tri-state signal provided by the physical interface.

37. (Currently Amended) A media converter comprising:

a switch having a first end and a second end, the first end capable of coupling to any of a plurality of potential sources of a data signal, the second end coupled to an input port of a physical interface that converts the data signal from a signal that propagates along a first medium to a signal that propagates along a second medium;

an optical transceiver coupled to the physical interface; and

means for controlling the switch so as to couple the input port of the physical interface to one of the plurality of potential data sources actually carrying a data signal;

wherein the physical interface detects a data rate of the data signal.

38. (Currently Amended) A network arrangement comprising:

a media converter including:

a switch having a first end and a second end, the first end capable of coupling to any of a plurality of potential sources of a data signal, the second end coupled to an input port of a physical interface that converts the data signal from a signal that propagates along a first medium to a signal that propagates along a second medium;

an optical transceiver coupled to the physical interface;

means for controlling the switch so as to couple the input port of the physical interface to one of the plurality of potential data sources actually carrying a data signal;

wherein the physical interface detects a data rate of the data signal;

a first network device coupled via the first medium to the switch within the media converter ~~of claim 37~~; and

a second network device coupled via the second medium to the optical transceiver within the media converter ~~of claim 37~~.

39. (Original) The network arrangement of claim 38, wherein the first network device comprises a switch.

40. (Original) The network arrangement of claim 38, wherein the first network device comprises a hub.

41. (Original) The network arrangement of claim 38, wherein the first network device comprises a workstation.

42. (Original) The network arrangement of claim 38, wherein the first medium is a metallic conductor.

43. (Original) The network arrangement of claim 38, wherein the second medium is an optical fiber.

44. (Original) The network arrangement of claim 38, wherein the first medium is an optical fiber.

45. (Original) The network arrangement of claim 38, wherein the second medium is a metallic conductor.